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PN - JP6148416 A 19940527  
PD - 1994-05-27  
PR - JP19920296153 19921105  
OPD - 1992-11-05  
TI - ULTRAVIOLET CURING RESIN COMPOSITION AND COLOR  
FILTER PROTECTIVE FILM FORMED BY USING THE  
COMPOSITION  
IN - KATO REIKO; KUNIMUNE KOICHI; TSUKA NOBUYUKI  
PA - CHISSO CORP  
IC - G02B5/20 ; G02B5/20 ; C08G59/20 ; C08G59/40 ; C08L63/00 ;  
G03F7/004 ; G03F7/028 ; G03F7/038

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TI - Ultraviolet ray-hardening resin composition for colour filter  
protective film - comprises epoxy] gp-contg (meth)acrylic] type  
polymer contg. glycidyl] methacrylate] and N-vinyl-2-pyrrolidone,  
(meth)acryl type polymer and initiator  
PR - JP19920296153 19921105  
PN - JP3232709B2 B2 20011126 DW200201 G03F7/11 009pp  
- JP6148416 A 19940527 DW199426 G02B5/20 009pp  
PA - (CHCC ) CHISSO CORP  
IC - C08G59/20 ; C08G59/40 ; C08L63/00 ; G02B5/20 ; G03F7/004  
; G03F7/028 ; G03F7/038 ; G03F7/11  
AB - J06148416 The compsn. contains component (A): epoxy  
group-contg (meth)acrylic type polymer contg. main structural units  
of formulae (I) and (II) and is 0.05-1 in the limiting viscosity (30  
deg.C) in diethylene glycol dimethyl ether; (B): (meth)acryl type  
polymer contg. types of carboxylic acid gp. and polybasic carboxylic  
acid anhydride which is 0.05-1 in the limiting viscosity (30 deg.C) in  
diethylene glycol dimethyl ether, (C): monomer having (meth)acryl  
gp., and (D): photopolymerisation initiator. R1 and R2 are H or 1-5C  
hydrocarbon gp., and m is 1-4. Also new is a new colour filter  
protective film formed by using the UV ray-hardening resin compsn.  
- Component (A) is pref. copolymer comprising mainly glycidyl  
methacrylate and N-vinyl-2-pyrrolidone. Component (B) is e.g.  
copolymer comprising mainly methyl methacrylate, methacrylic acid  
and maleic anhydride. Component (C) is e.g. butyl acrylate,  
cyclohexyl acrylate or methylamino ethyl methacrylate. Component  
(D) is e.g. benzophenone, 4,4'-diethylamino benzophenone or  
acetophenone.

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- USE/ADVANTAGE - The UV ray-hardening resin compsn. is obtd. and a colour filter protective film using the resin compsn. The film obtd. from the resin compsn. is developed by alkali aq. soln. and the hardened film is improved in transparency, heat, chemical and sputter resistance and adhesiveness and is suitable as protective film of colour filter.

- In an example, a UV ray hardening resin compsn. was prepd. by using (A) copolymer of glycidyl methacrylate and N-vinyl-2-pyrrolidone, (B) copolymer of methacrylic acid and methyl methacrylate, (C) pentaerythritol triacrylate and (D) 2-methyl-1-(4-(methyl thio)phenyl)-2-morpholino propane-1, etc.  
- (Dwg.0/0)

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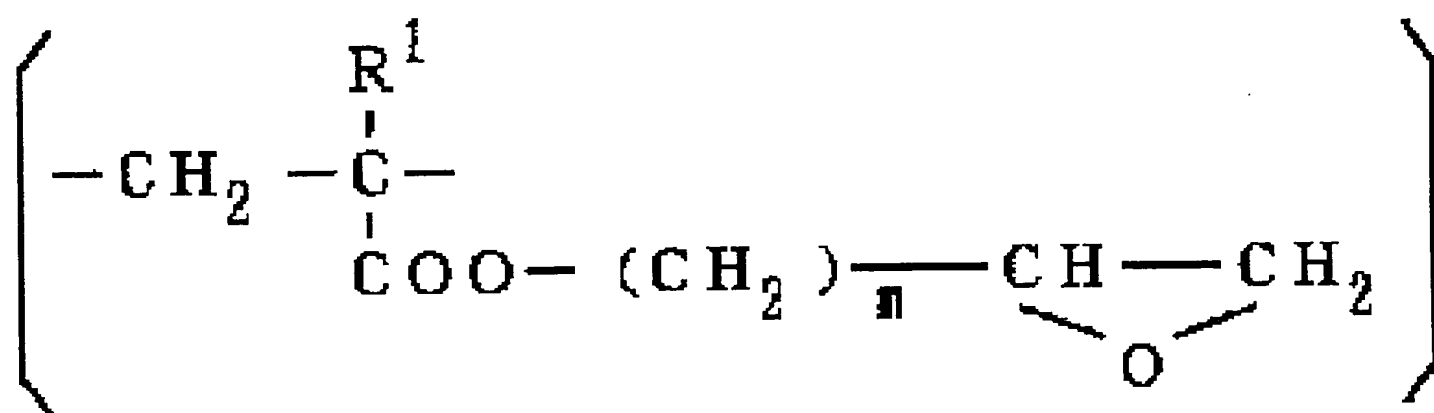
IN - KUNIMUNE KOICHI; others02

PA - CHISSO CORP

TI - ULTRAVIOLET CURING RESIN COMPOSITION AND COLOR FILTER PROTECTIVE FILM FORMED BY USING THE COMPOSITION

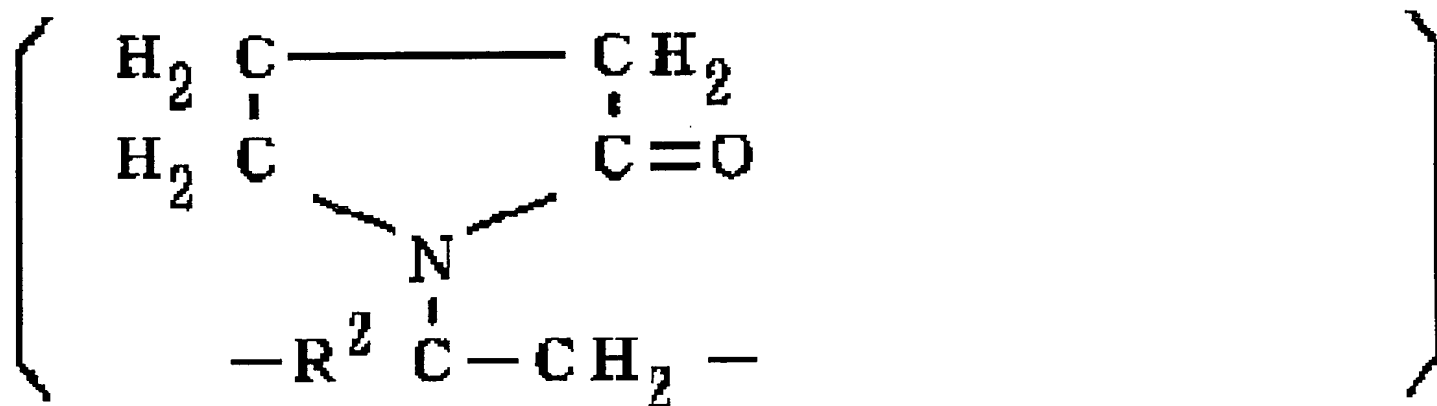
AB - PURPOSE: To improve transparency, heat resistance, chemical resistance, sputtering resistance, adhesion, etc., by incorporating specific (meth)acrylate polymer, etc., into the compsn., thereby obtaining a coating film which can be etched by a developer having less toxicity and obviating the degradation in properties.  
- CONSTITUTION: This compsn. contains four components; (A), (B), (C) and (D). (A) An epoxy group-contg. (meth)acrylate contg. the structural unit expressed by formula I and the structural unit expressed by formula II as main structural units and having 0.05 to 1 ultimate viscosity at 30 deg.C in diethylene glycol dimethyl ether. (B) A (meth)acrylic polymer contg.  $\geq 1$  kinds of carboxylic group and polyvalent carboxylic anhydride group having 0.05 to 1 ultimate viscosity at 30 deg.C in the diethylene glycol dimethyl ether. (C) A monomer having a (meth)acrylic group. (D) A photopolymerization initiator. In the formulas I, II, R<sup>4</sup> and R<sup>2</sup> are independently a hydrogen group or 1 to 5C hydrocarbon group; m denotes an integer from 1 to 4.

I - G02B5/20 ; C08G59/20 ; C08G59/40 ; C08L63/00 ; G03F7/004 ; G03F7/028 ; G03F7/038



I

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II